

REMARKS

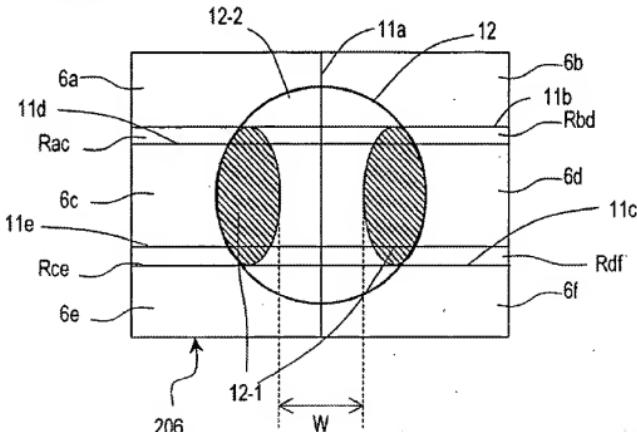
Claims 7-25 are pending in the application. Claims 16 and 23 have been amended herein. Claims 24-25 have been added. Favorable reconsideration of the application, as amended, is respectfully requested.

**I. REJECTION OF CLAIMS 7-23 UNDER 35 USC §102(e)/§103(a)**

Claims 7, 11, 16, 17, 20, 22 and 23 stand rejected under 35 USC §102(e) based on *Nagata et al.* Remaining claims 8-10, 12-15, 18, 19 and 21 stand rejected under 35 U.S.C. §103(a) based on *Nagata et al.* in view of one or more secondary references. Applicant respectfully requests withdrawal of these rejections for at least the following reasons.

***Claims 7 and 22:***

*FIG. 13*



*Present Invention*

Applicant notes that the invention of claims 7 and 22 is exemplified in Fig. 13 and Paragraph [0078] of the present application (reproduced herein). To wit:

[0078] One of the principal features of the optical head 220 of this embodiment is that in the direction parallel to the information tracks (i.e., along the division line 11a), the gap between the division lines 11d and 11e is set shorter than the maximum length of the areas (i.e., the hatched areas 12-1 shown in FIG. 13) in which the zero-order and first-order components of the diffracted light coming from the information track are superposed one upon the other. The optical head 220 is also characterized in that the overall length of the diffraction element 206 as measured perpendicularly to the information tracks (i.e., along the division lines 11b and 11d) is equal to or greater than the diameter of the beam spot 12. Thus, the deviation of the TE signal, caused by the tilt of the optical disc 105, can be reduced. In this case, the tilt of the optical disc 105 means a tilt to be produced by rotating the plane of the optical disc 105 on the tangential line of the information tracks, i.e., a radial tilt.

Claims 7 and 22 recite such features in that in the direction in which the reflected rays including zero-order and first-order components are arranged, the light receiving area has a size that is equal to or greater than the diameter of the luminous flux of reflected rays. Conversely, in a second direction perpendicular to the first direction, the light receiving area is narrower than the first type of reflected rays (see, e.g., the narrower distance between lines 11d-11e compared to the distance between the lines 11b-11c encompassing the respective ends of regions 12-1 in Fig. 13 as discussed above).

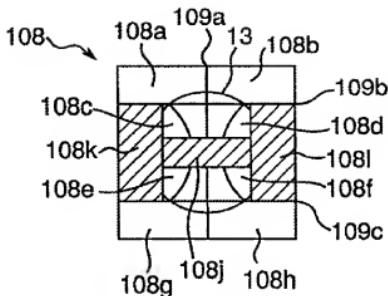
*Nagata et al.* is discussed in the present application in relation to corresponding PCT application publication number WO 97/15923, beginning at paragraph [0005] of the published application.<sup>1</sup> In rejecting claims 7 and 22, the Examiner refers to Fig. 11 of *Nagata et al.* along with column 11, lines 47-65. However, applicant respectfully submits that *Nagata et al.* does not teach the invention as recited in claims 7 and 22. To wit:

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<sup>1</sup> See discussion relating to Figs. 1(b) and 2 in present application.

Nagata et al.

Fig. 11

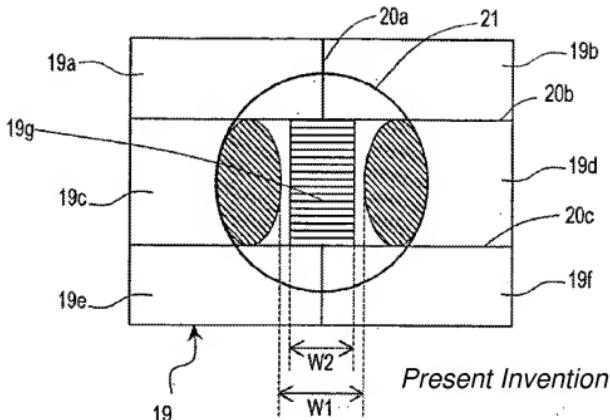


Referring to Fig. 11 of Nagata et al. (reproduced above), regions 108c-108f correspond to the superposed zero-order and first-order regions 12-1 as represented in Fig. 13 of the present application. In that regard, Nagata et al. teaches that the light receiving area has a size in the second direction which is equal to the length of the area of the first type of reflected rays. Specifically, lines 109b-109c illustrate that the *length* of the superposed regions (e.g., 108d, 108f) and the *length* of the light receiving areas *are the same* as defined by the same lines 109b-109c, and therefore are not different. Similar comments apply with respect to Fig. 13 of Nagata et al. which is also referenced by the Examiner. Thus, Nagata et al. does not teach or suggest the features of claims 7 and 22 wherein as measured in the second direction the light receiving area is *narrower* than the first type of reflected rays.

Accordingly, applicant respectfully requests that the rejection of claims 7 and 22 be withdrawn.

**Claims 16 and 23:**

*FIG. 16*



*Present Invention*

Claims 16 and 23 have been amended to recite the feature "where as measured in a direction in which the first type of reflected rays are arranged, the non-light-receiving area is narrower than a distance between the first type of reflected rays". Such an embodiment is exemplified in Fig. 16 of the present application (reproduced above), and is described at page 46, line 19 to page 48, line 8. As is noted, the non-light receiving area 19g has a width W2 which is narrower than the distance W1 between the first type of reflected rays (shown in cross-hatch).

*Nagata et al.* does not teach or suggest such features as recited in amended claims 16 and 23. In each of the embodiments shown in *Nagata et al.*, the non-light receiving area (e.g., 108j) overlaps the first type of reflected rays. Thus, the width of such non-light receiving area is not narrower than the distance between the first type of reflected rays as claimed.

Accordingly, applicant respectfully requests that the rejection of claims 16 and 23 also be withdrawn.

The remaining claims depend from one of claims 7, 16, 22 and 23, either directly or indirectly, and therefore may be distinguished over the teachings of *Nagata et al.* for at least the same reasons presented above. The secondary references have not been found to make up for such deficiencies in *Nagata et al.* Thus, withdrawal of the rejection of each of the claims is respectfully requested.

***Claims 24 and 25:***

New claims 24 and 25 depend from claims 7 and 22, respectively. These claims specifically recite that the non-light-receiving areas are provided at both sides of the light receiving areas in the second direction so as not to receive the first type of reflected rays and the second type of reflected ray. Support for these claims may be found, for example, in areas Rac, Rbd, Rce and Rdf of Fig. 13 in the present application.

***II. CONCLUSION***

Accordingly, all claims 7-25 are believed to be allowable and the application is believed to be in condition for allowance. A prompt action to such end is earnestly solicited.

Should the Examiner feel that a telephone interview would be helpful to facilitate favorable prosecution of the above-identified application, the Examiner is invited to contact the undersigned at the telephone number provided below.

Should a petition for an extension of time be necessary for the timely reply to the outstanding Office Action (or if such a petition has been made and an additional extension is necessary), petition is hereby made and the Commissioner is authorized to charge any fees (including additional claim fees) to Deposit Account No. 18-0988.

Respectfully submitted,

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